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30 ROCKEFELLER PLAZA NEW YORK, NY 10112			HARPER, V PAUL	
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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)			
	09/891,242	KEILLER, ROBERT ALEXANDER			
· Office Action Summary	Examiner	Art Unit			
	V. Paul Harper	2654			
The MAILING DATE of this communication ap Period for Reply	pears on the cover sheet with the	correspondence address			
A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a rep If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statut - Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). Status	136(a). In no event, however, may a reply be tingly within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from e, cause the application to become ABANDONE	mely filed ys will be considered timely. In the mailing date of this communication. ED (35 U.S.C. § 133).			
1) Responsive to communication(s) filed on 14	November 2002 .				
2a)⊠ This action is FINAL . 2b)□ T	nis action is non-final.				
3) Since this application is in condition for allow					
closed in accordance with the practice under Disposition of Claims	Ex parte Quayle, 1955 C.D. 11,	+03 O.G. 213.			
4)⊠ Claim(s) <u>1-3,5-7,9-30,32-34 and 36-48</u> is/are	pending in the application.				
4a) Of the above claim(s) is/are withdrawn from consideration.					
5) Claim(s) is/are allowed.					
6)⊠ Claim(s) <u>1-3,5-7,9-30,32-34 and 36-48</u> is/are rejected.					
7) Claim(s) is/are objected to.					
8) Claim(s) are subject to restriction and/o	or election requirement.				
Application Papers					
9) The specification is objected to by the Examine					
10) ☐ The drawing(s) filed on is/are: a) ☐ acce	•				
Applicant may not request that any objection to the 11) The proposed drawing correction filed on					
If approved, corrected drawings are required in re		oved by the Examiner.			
12) The oath or declaration is objected to by the Ex	• •				
Priority under 35 U.S.C. §§ 119 and 120					
13) Acknowledgment is made of a claim for foreig	n priority under 35 U.S.C. § 119(a	a)-(d) or (f).			
a) ☐ All b) ☐ Some * c) ☐ None of:		-, (-, -, (-, -, -, -, -, -, -, -, -, -, -, -, -, -			
1. Certified copies of the priority documen	ts have been received.				
2. Certified copies of the priority documents have been received in Application No					
Copies of the certified copies of the prication from the International But See the attached detailed Office action for a list.	ority documents have been receive ureau (PCT Rule 17.2(a)).	ed in this National Stage			
14) Acknowledgment is made of a claim for domest	tic priority under 35 U.S.C. § 119(e) (to a provisional application).			
a) ☐ The translation of the foreign language pro 15)☐ Acknowledgment is made of a claim for domes	• •				
Attachment(s)					
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of Informal	y (PTO-413) Paper No(s) Patent Application (PTO-152)			

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DETAILED ACTION

Specification

1. All relevant objections are withdrawn as being satisfied.

Claim Objections

2. All relevant objections are withdrawn as being satisfied.

Claim Rejections - 35 USC § 112

3. All 112 second paragraph rejections are withdrawn as being satisfied.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 4. Claims 1-3, 11-19, 23-30, and 36-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Buchner (European Patent Application EP 0 911 808 A1).

Regarding claim 1, Buchner discloses a speech interface in a home network environment. Buchner's system comprises: a physical layer to a home network bus on the network device (16) (col. 7, lines 28-30, Figure 2) that receives messages from the speech unit (col. 7, lines 33-37), which corresponds to "receiving means for receiving

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dialog interpretable instructions derived from speech data processed by the speech processing apparatus"; a device interface (Figure 2 (16) that can transfer command data (including vocabulary and grammars that can support a dialog) from a network device (col. 5, lines 14-17) to a memory (13) for holding all the user-network-commands to control the network device (col. 7, 46-50) and a central processing unit that can send and receive messages to and from the speech unit (col. 7, lines 32-55, Figure 4, (41) and (11)), which corresponds to "device interface means for communicating with the processor-controlled machine to receive from the processor-controlled machine function information defining the functions available on that processor-controlled machine and dialog information defining a dialog compatible with the processor-controlled machine for enabling the control apparatus to cause the processor-controlled machine to carry out at least one of the available functions"; the ability to download vocabularies stored in memory (13) to the extended grammar section (7d) in the speech unit for a particular network device (col. 5, lines 14-17, col. 7, lines 50-56), which corresponds to "dialog determining means for determining from the dialog information provided by the processor-controlled machine the dialog to be used for communicating with the processor-controlled machine"; a spoken dialog means allowing a user to interact with a network device (¶ 00027 and 0028, Figures 3 and 4), which corresponds to "dialog communication means for interpreting received dialog interpretable instructions using the determined dialog and for communicating with the processor-controlled machine using the determined dialog to enable information to be provided to the user in response to received dialog interpretable instructions, thereby enabling the user to conduct a

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spoken dialog with the processor-controlled machine"; and a network device with the combined functions for supporting dialog communications and control of the machine (Figure 2, (15), Figure 4, (41)) supporting network-controllability via speech (col. 1, 44-47), which corresponds to "machine communication means for communicating with the processor-controlled machine to cause the processor controlled machine to carry out a function defined by the function information in accordance with the spoken dialog conducted by the user with the processor-controlled machine."

Regarding claim 2, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses a means for locating a device on a network by its ID (col. 14, lines 30-33, Figure 3) and commands such as media descriptors that can be acquired from other sources (col. 14, lines 34-55), which corresponds to "the control apparatus is connectable to a network and the dialog determining means is arranged to determine the location on the network of the determining for that dialog."

Regarding claim 3, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses a accessible memory in the network device where a list of control-network-commands is stored (col. 7, lines 40-45), which corresponds to "storing means for causing the determining dialog to be stored in a dialog store of the control apparatus."

Regarding claim 11, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses dialog states (Figures 9-13) that are determined by the sequence of commands sent (col. 10, line 41-col. 16. line 23), which correspond to "a dialog has a number of dialog states and the dialog communication

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means is arranged to control the dialog state in accordance with the received dialog interpretable instructions."

Regarding claim 12, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses that when a device is newly connected to the network it can send its specific set of grammars to the speech unit (col. 11, lines 49-52), which corresponds to "the dialog communication means is arranged to supply to the speech processing apparatus information relating to speech recognition grammar to be used for processing speech data in accordance with a dialog state."

Regarding claim 13, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses a system where the user inputs commands by microphone and the signals from the microphone go to a signal processing unit and then onto a CPU for processing (col. 6, lines 18- 24, Figure 1), which corresponds to "audio data receiving means for receiving speech data and audio data transmitting means for transmitting received speech data to the speech processing apparatus.

Regarding claim 14, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses a network connection ((5), (6), and (10) of Figure 1) allowing the speech unit to communicate with other devices (col. 6, lines 44-47, Figure 1, (10)), which corresponds to "network interface means for communicating with the speech processing apparatus over a network."

Regarding claim 15, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses a network connection from a network device (41) to other network devices attached to appliances (Figure 4), which

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corresponds to "network interface means for communicating with the processorcontrolled machine over a network."

Regarding claim 16, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses a wireless network where all the devices can communicate with each other via built-in transmitters and receivers (col. 8, lines 53-56, Figure 5), which corresponds to "remote communication means for communicating with a least one of the speech processing apparatus and the processor controlled machine."

Regarding claim 17, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses a network device with the speech control unit built-in (col. 8, 34-35, Figure 4, (41)), which corresponds to "a control apparatus and an audio input device."

Regarding claim 18, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner's system comprises: a speech recognizer with a vocabulary and a set of knowledge-bases (or grammars) (col. 4, lines 1-4), which corresponds to "a speech recognizing means for recognizing speech in received audio data using at least one speech recognition grammar;" a converter for converting a user command into a user-network-command (col. 4, lines 4-7), which corresponds to "speech interpreting means for interpreting recognized speech to provide dialog interpretable instructions;" and a means of transporting the command to the device (col. 4, lines 5-7, Figures 1 and 2) which corresponds to "a transmitting means for transmitting the dialog interpretable instructions to the dialog communication means."

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Regarding claim 19, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses: software and a CPU for device control (Figure 2, (15) and (12)), which corresponds to "machine control circuitry for carrying out at least one function and a processor for controlling the machine control circuitry"; memory used for processing and storage of a list of control-network commands for a network device (col. 7, lines 39-59, Figure 2), which corresponds to "storing means for storing information relating to a device class defining a dialog to be used with the process-controlled machine and functions available on the machine"; and vocabularies and grammars stored in memory (13) that can be down-loaded into the extended memory (col. 7, lines 50-56), which corresponds to a "means for providing said information to the control apparatus for enabling the dialog determining means to determine the dialog to be used with the processor controlled machine."

Regarding claim 23, Buchner discloses everything claimed, as applied above (see claim 19); in addition, Buchner discloses a network device integrated with a speech unit (41) used to communicate with processor controlled network devices connected to appliances, which corresponds to "a network comprising a processor-controlled machine."

Regarding claim 24, Buchner discloses everything claimed, as applied above (see claim 23); in addition, Buchner discloses a network device where the network device is integrated with the device being controlled (Figures 2 and 4), which corresponds to "the device or control apparatus is integrated with the processor-controlled machine."

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Regarding claim 25, Buchner discloses everything claimed, as applied above (see claim 23); in addition, Buchner discloses a system with a separate speech unit (Figure 3, (11)), which corresponds to "a separate audio input device."

Regarding claim 26, Buchner discloses everything claimed, as applied above (see claim 23); in addition, Buchner's system comprises: a microphone (1) connected to a speech unit (Figure 1), which corresponds to "means for receiving audio data representing speech by a user"; a speech recognizer with a vocabulary and a set of knowledge-bases (or grammars) (col. 4, lines 1-4), which corresponds to " a speech recognition means for recognizing speech in received audio data using at least one speech recognition grammar;" a converter for converting a user command into a user-network-command (col. 4, lines 4-7), which corresponds to "speech interpreting means for interpreting recognized speech to provide the dialog interpretable instructions;" and a means of transporting the command to the device (col. 4, lines 5-7, Figures 1 and 2) which corresponds to "a transmitting means for transmitting the dialog interpretable instructions to the dialog communication means."

Regarding claim 27, Buchner discloses everything claimed, as applied above (see claim 26); in addition, Buchner's system includes commands for media descriptors which return information related to specific devices (col. 14, lines 34-36), which corresponds to "a look-up service connectable to the network."

Regarding claim 28, Buchner discloses a speech interface in a home network environment capable to controlling network devices. Buchner's network device (Figure 4, (41) and (11)) has the ability to perform the following functions: receive messages

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from the speech unit (col. 7, lines 25-40), which corresponds to "receiving dialog interpretable instructions derived from speech data processed by the speech processing apparatus"; communicate with a network device where command data can be transferred (col. 5, lines 14-17, Figure 2) to a memory (13) for holding all the usernetwork-commands to control the network device (col. 7, 46-50) and a central processing unit that can send and receive messages to and from the speech unit (col. 7, lines 32-37, Figure 4, (41) and (11)), which corresponds to "communicating with the processor-controlled machine to receive from the processor-controlled machine function information defining functions available on the processor-controlled machine and dialog information defining a dialog compatible with the processor-controlled machine for enabling the control apparatus to cause the processor-controlled machine to carry out at least one of the available functions in accordance with a spoken command"; download vocabularies stored in memory (13) to the extended grammar section (7d) in the speech unit determining the for dialog for a particular network device (col. 5, lines 14-17, col. 7, lines 50-56), which corresponds to "determining from the dialog information provided by the processor-controlled machine a dialog to be used for communicating with the processor-controlled machine; process the spoken dialog allowing a user to interact with a network device (¶ 00027 and 0028, Figures 3 and 4), which corresponds to "interpreting received dialog interpretable instructions using the determined dialog and communicating with the processor-controlled machine using the determined dialog to enable information to be provided to the user in response to the received dialog interpretable instructions, thereby enabling the user to conduct a spoken dialog with the

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processor-controlled machine"; and communicating with a network device with the combined functions for dialog communications and control of the machine (Figure 2, (15), Figure 4, (41)) supporting network-controllability via speech (col. 1, 44-47), which corresponds to "communicating with the processor-controlled machine to cause the processor-controlled machine to carry out a function defined by the function information in accordance with the spoken dialog conducted by the user with the processor-controlled machine".

Regarding claim 29, Buchner discloses everything claimed, as applied above (see claim 28). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 2.

Regarding claim 30, Buchner discloses everything claimed, as applied above (see claim 28). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 3.

Regarding claim 36, Buchner discloses everything claimed, as applied above (see claim 28). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 11.

Regarding claim 37, Buchner discloses everything claimed, as applied above (see claim 28). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 12.

Regarding claim 38, Buchner discloses everything claimed, as applied above (see claim 28). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 13.

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Regarding claim 39, Buchner discloses everything claimed, as applied above (see claim 28). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 14.

Regarding claim 40, Buchner discloses everything claimed, as applied above (see claim 28). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 15.

Regarding claim 41, Buchner discloses everything claimed, as applied above (see claim 28). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 16.

Claim Rejections - 35 USC § 103

5. Claims 5-7, 9, 20-22, 32-34, and 42-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchner in view of well known prior art (MPEP 2144.03).

Regarding claim 5, Buchner discloses a speech interface in a home network environment which has features described above in claim 1 that correspond to the limitations listed in claims 1 and 19, above, and are rejected for the same reasons; however, Buchner does not specifically disclose that the network device comprises a JAVA virtual machine. However, the examiner takes official notice of the fact that the use of a JAVA virtual machine as a platform for executing software used for control was well known in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the control code in the control apparatus

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using JAVA and execute the code on a JAVA virtual machine since JAVA is a popular programming language commonly used in network environments.

Regarding claim 6, Buchner in view of well known prior art disclose everything claimed, as applied above (see claim 5); in addition, Buchner discloses features described in the claim 2 rejection that correspond to the limitations listed in this claim.

Regarding claim 7, Buchner in view of well known prior art disclose everything claimed, as applied above (see claim 5); in addition, Buchner discloses features described in the claim 3 rejection that correspond to the limitations listed in this claim.

Regarding claim 9, Buchner discloses a speech interface in a home network environment which has features described above in claim 1 that correspond to the limitations listed in this claim; however, Buchner does not specifically disclose that the network device comprises a JAVA virtual machine. However, the examiner takes official notice of the fact that the use of a JAVA virtual machine as a platform for executing software used for control was well known in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the control in the control apparatus using JAVA and execute the code on a JAVA virtual machine, since JAVA is a popular programming language commonly used in network environments.

In addition, Buchner in view of well known prior art disclose means for determining media specific descriptions (col. 14, lines 34-55), which corresponds to "means for determining, using information provided by the processor-controlled machine, functions available on that machine," yet Buchner in view of well know prior art

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do not specifically disclose the use of the JAVA reflection API to determine this information. However, the examiner takes official notice of the fact that the use of a JAVA reflection API for getting information about the current Java virtual machine was well known in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the means for determining machine functions with the JAVA reflection API, since this API is a commonly used programming interface for determining information related to JAVA classes and objects.

Regarding claim 20, Buchner in view of well known prior art disclose everything claimed, as applied above (see claim 5); in addition, Buchner discloses: software and a CPU for device control (Figure 2, (15) and (12)), which corresponds to "machine control circuitry for carrying out at least one function; and a processor for controlling the machine control circuitry"; a memory used for processing and storage of a list of controlnetwork commands where the commands might be device dependent (col. 7, lines 39-55, Figure 2), which corresponds to "storing means for storing a device class for the process-controlled machine the device class defining a dialog to be used with the processor-controlled machine and functions available on the machine"; and a means for locating a device on a network by its ID (col. 14, lines 30-33, Figure 3), which corresponds to a "means for supplying the device class to the control apparatus."

Regarding claim 21, Buchner discloses everything claimed, as applied above (see claim 19); in addition, Buchner discloses a system that uses a speech recognizer for controlling different consumer devices including mobile telephones, PCs and printers

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(col. 1, lines 7-10, col. 1, lines 42-47), but Buchner's list of devices controlled does not include photocopying or facsimile functions. However, the examiner takes official notice of the fact that the use of a control system for control of photocopying or facsimile devices was well known in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to expand the list of device functions supported by Buchner to include photocopying and facsimile functions, since these functions were commonly found in home offices.

Regarding claim 22, Buchner discloses everything claimed, as applied above (see claim 19); in addition, Buchner discloses a system that uses a speech recognizer for controlling different consumer devices including televisions, printers, heaters and camcorders (col. 1, lines 7-10, col. 1, lines 42-47), but Buchner's list of devices does not include video cassette recorders, microwave ovens, digital cameras, photocopiers, lighting system, and a heating system. However, the examiner takes official notice of the fact that the use of a control system for control of videocassette recorders, microwave ovens, digital cameras, a photocopiers, or lighting systems was well known in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to expand the list of devices supported by Buchner to include all of those listed in claim 22, since these functions were commonly found in the home.

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Regarding claim 32, Buchner discloses a speech interface in a home network environment which has features described above in claims 5 and 20 that correspond to the limitations listed in this claim, and is rejected for the same reasons.

Regarding claim 33, Buchner in view of well known prior art disclose everything claimed, as applied above (see claim 32). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 6.

Regarding claim 34, Buchner in view of well known prior art disclose everything claimed, as applied above (see claim 32). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 7.

Regarding claim 42, Buchner in view of well known prior art disclose features described in the rejections of claims 5 and 20, above, that correspond to the limitations listed in this claim, and claim 42 is rejected for the same reasons

Regarding claims 43, 44, 45, 47 and 48, Buchner or Buchner in view of well know prior art disclose everything claimed, as applied above (see claims 1, 28, 32 and 42, respectively); however, Buchner (or Buchner in view of well known prior art) does not specifically disclose "processor implementable instructions for configuring a processor to carry out a method in accordance with claim 1, 28, 28, 32, or 42." However, the examiner takes official notice of the fact that programming a processor to execute control functions on a network was well known in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to program a processor to perform the desired control functions on a network since this is a standard way to implement such operations.

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Regarding claim 46, Buchner in view of well know prior art disclose everything claimed, as applied above (see claim 44); however, Buchner does not specifically disclose "a storage medium carrying a computer program product in accordance with claim 44." However, the examiner takes official notice of the fact that use of a storage medium with a processor was well known in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made use a storage medium for storing the process specific code so as be able to load the necessary code on startup.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buchner in view of well known prior art and further in view of Hemphill (European Patent Application EP 0 854 418 A2), hereinafter referred to as Hemphill.

Regarding claim 10, Buchner in view of well known prior art do not specifically disclose "a job listener registering means for registering a job listener to receive from the processor-controlled machine information relating to events occurring at the processor-controlled machine." However, the examiner contends that the concept of a "listening" signal being generated when data is available from a device was well known in the art, as taught by Hemphill.

Hemphill discloses a programmable distributed appliance control system.

Hemphill's system includes the ability to generate a signal to an interface (65) when data is available from a consumer device (col. 7, line 55-65).

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Buchner in view of well know prior art by providing a notification means from an appliance, as taught by Hemphill, for the purpose of providing a more rapid response when an appliance has data that needs to be transferred to the control device.

Response to Arguments

The above rejections have been done with respect to the amended claims; in addition, the Applicant's arguments filed 11/14/02 have been fully considered but they are not persuasive.

7. Applicant asserts on page 21:

In contrast to Buchner, the present invention does not require grammar and vocabulary information from a processor-controlled machine, but rather receives from the processor-controlled machine data defining the functions that the machine is capable of performing (whether that function be defined by function information or defined by at least one function determined from the device class to be available on the machine) and data defining a determined dialog or dialog compatible with the machine. By this arrangement, a user is able to conduct spoken dialog with a processor-controlled machine without that processor-controlled machine having to have any knowledge of the voice control arrangement that is being used to enable voice control.

Buchner teaches that the speech unit can receive user-network-commands and corresponding vocabulary and grammars from a network device (col. 5, lines 14-25). In this case, the Examiner feels that "corresponding"

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vocabulary and grammars" is included in the description "data defining the functions that the machine is capable of performing . . . and data defining a determined dialog or dialog compatible with the machine." Since the transfer of vocabulary and grammars is certainly the transfer of data, and this data defines the dialog capability of the speech recognizer when interacting with the particular network device."

Thus, the rejections of claims 1-3, 5-7, 9-30, 32-34, and 36-48 stand; furthermore, the Applicant's failure to adequately traverse the Examiner's taking of Official Notice in the last office action is taken as an admission of the fact(s) noticed.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to:

Crystal Park II 2121 Crystal Drive Arlington, VA. Sixth Floor (Receptionist)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. V. Paul Harper whose telephone number is (703) 305-4197. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold, can be reached on (703) 305-4379. The fax phone number for the Technology Center 2600 is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service office whose telephone number is (703) 306-0377.

Marsha D. Banks-Harold supervisory patent Examiner technology center 2800